NATIONAL INSTITUTES OF HEALTH
WARREN GRANT MAGNUSON CLINICAL CENTER
NURSING DEPARTMENT

Standards of Practice: Care of the Patient with a Tracheostomy

I. Assessment

A. New tracheostomy (surgeon has NOT performed first post-op trach tube change)
   1. Assess the following every hour X 24° post-op, every 2-4 hours second 24° post-op, every 4 hours thereafter until first post-op trach tube change:
      a. Respiratory rate, effort, and symmetry of chest movement or baseline status of chest movement
      b. Patency and integrity of inner cannula, presence of sutures, tracheostomy tube, and securing devices
      c. Stoma site: skin integrity, color, pain, drainage, bleeding, swelling, and crepitus.
      d. Secretions: quantity, color, odor, and consistency
      e. For cuffed tubes, assess whether the cuff is inflated or deflated as ordered by inspecting and/or palpating the external pilot balloon.
   2. Assess every 4 hours and PRN X 24 hours and then every 8 hours:
      a. Bilateral breath sounds
      b. Ability to independently cough and clear secretions when off mechanical ventilation
      c. Ability to swallow (when drinking or eating) and evidence of aspiration (cough with swallow or food/fluid coming out of tracheostomy)
   3. Assess every 24 hours coping skills related to changes in breathing process and appearance.

B. Mature tracheostomy (surgeon has performed first post-op trach tube change, usually 4-10 days post-op) will be assessed at least every 8° using the parameters listed in I.A.1-3.

C. All tracheostomy patients
   1. Every 24 hours, validate emergency trach tray available on the unit.
   2. Every 24 hours, validate following equipment available at bedside:
      a. post-op trach kit or bedside trach kit with appropriate back-up trach tubes
      b. bag-valve-mask device
      c. saline bullets, if ordered
      d. suctioning supplies
      e. trach care supplies
   3. As clinically appropriate, the following will be assessed every 24 hours for inpatients and with every patient encounter for outpatients:
      a. patient/family learning needs:
         - Understanding of self-care needs
         - Willingness and ability to learn following self-care procedures
           (a) Suctioning

(b) Changing cannulas
(c) Peristomal care and dressing change
(d) Instill saline, if ordered
(e) Emergency management

b. Communication Needs
- Call bell, alpha board, pen and paper
- Mechanical device

c. Meets discharge planning criteria for self-care including:
- self-suctioning
- dressing changes
- stoma site care
- inner cannula changes
- emergency management
  (a) accidental decannulation
  (b) mucous plugging
- knowledge of tracheostomy tube current type and size

II. Interventions

A. Planned preoperative tracheostomy
1. Facilitate social work consult
   a. Medic Alert® bracelet
   b. Notification of local Emergency Medical System re: impaired communication
   c. Facilitating acquisition of home equipment
2. Facilitate speech therapy consult for evaluation of communication needs
3. Facilitate ENT nurse consult
4. Patient Family Teaching – review the following information:
   a. Reason for and expected duration of tracheostomy
   b. How to effectively communicate immediately post-op
   c. Tracheostomy tube and its functions
   d. Anticipated respiratory care post-op
   e. Self-care trach regimen
   f. Safety precautions

B. New tracheostomy (surgeon has NOT performed first post-op trach tube change)
1. Encourage coughing and deep breathing
2. Suction based on secretion amount and ability of patient to independently clear airway
3. Clean stoma and change dressings every 8 hours and whenever dressings are wet or stoma is not clean and dry

4. Clean inner cannula or replace disposable inner cannula every 8 hours or whenever secretions impair patency
5. Change the securing device on the tracheostomy PRN and when soiled AFTER surgeon's first trach tube change.
6. Cuffed Trach Tubes – validate medical orders for the following:
    a. Appropriate cuff inflation volume
    b. Cuff inflation or deflation (frequency and duration)
    c. Cuff pressure assessment (using appropriate manometer acquired via a Respiratory Therapy consultation).
7. Post-op trach kit (patient will arrive from the Operating Room with kit) will remain with and accompany the patient at all times.
8. Provide safety measures:
    a. patient room located close to nursing station
    b. call system at nursing station labeled if patient unable to speak
9. Elevate head of bed at least 45 degrees continuously or according to medical order
10. If not accomplished preoperatively, initiate consults for:
    a. Speech Therapist
    b. Social Services
    c. ENT nurse

C. Mature tracheostomy (surgeon has performed first post-op trach tube change, usually 4-10 days post-op)
1. Continue interventions above as needed
2. Provide humidified environment as ordered
3. The following will remain with and accompany the patient at all times:
    a. Bedside trach kit
    b. emergency replacement tracheostomy tube of present type and size
    c. emergency replacement tracheostomy tube of same type BUT one size smaller
4. Arrange for routine change of entire tracheostomy tube (external and internal cannulas) at least every 4 weeks for adults
5. For patients with single cannula tracheostomy tubes, i.e., without an inner cannula, change tubes frequently, as guided by patient's condition. Consult with ENT nurse or trach surgeon for guidance.
6. For pediatric patients, do not change tracheostomy tube within one hour of feeding

D. Medical readmission of outpatient with mature tracheostomy
    a. Faciltate respiratory therapy consult at time of admission for patient assessment
    b. Order bedside trach kit from CHS and add appropriate backup trach tubes. Keep this at HOB and with patient at all times.
    c. All assessments (section I.) and interventions (Section II.) as listed above.

E. All tracheostomy patients
1. As indicated per patient/family's level of knowledge and clinical situation, instruct or reinforce pre-operative teaching plus:
    a. Encourage patient to view self in mirror
    b. Social reintegration (ambulates in hall; interacts with family/friends)
    c. Effective deep breathing and coughing
    d. Use incentive spirometer with adaptor
    e. Mucous clearing (self-suctioning; saline instillation, if ordered)

f. Removal/replacement of disposable inner cannula
g. Removal/cleaning/replacement of reusable inner cannula
h. Peristomal care and dressing change
i. Ability to change trach ties/holder
j. Remove/replace speaking valve or decannulation plug
k. Inflates/deflates cuff (if applicable)
l. need to keep bedside trach kit and spare trach tubes with them at all times

2. To facilitate patent airway, speaking valve (one-way valve) or plug ("decannulation plug") will not be placed on inflated cuffed tracheostomy tube, unless the tube has a patent fenestration of both the outer and inner cannulas.
3. Notify surgeon re: accidental decannulation, pulsating tracheostomy tube, or significant bleeding.
4. Discharge Planning –
   a. order take-home trach kit @ least 2 days prior to discharge
   b. validate emergency equipment available in home:
      - suction machine and supplies
      - emergency tracheostomy tubes of current size/type and one size smaller of current type
      - saline for instillation, if ordered
      - dressing supplies
      - stoma care supplies

III. **Documentation**

E. Document the following in MIS or on approved NIH forms
   1. Assessments and interventions
   2. Tracheostomy tube
      a. Current size
      b. Type (fenestrated, cuffed, disposable or reusable inner cannula)
      c. cuff status
   3. Dates of insertion and date of last tube change
   4. Patient/family teaching
   5. Discharge planning as outlined above

IV. References

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Clare E. Hastings, RN, Ph.D.
Chief, Nursing and Patient Care Services

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